IR Megapixel Vari-focal Bullet

3MP Starlight Network Camera



- Max 30fps@3MP (2048x1536)
- Starlight Technology for Dark Environments
- Ultra WDR (140dB)
- True Day/Night
- 2.7mm~12mm Motorized Lens
- Smart IR 50m (165ft)
- 2/1 Alarm in/out, 1/1 Audio in/out
- Outdoor Rated IP67
- Intelligent Video System (optional)



System Overview

The IR Megapixel Vari-focal Bullet camera delivers 3MP resolution with 2.7mm~12mm motorized lens. The camera's elegant blend of aesthetics combined with a range of easy mounting solutions provides an excellent choice for a variety of small to mid-size applications.

Functions

True Day/Night
A day/night mechanical IR cut filter makes this camera ideal for applications with fluctuating lighting conditions, delivering color images during the day and automatically switching to monochrome as the scene darkens.

Starlight Technology
For challenging low-light applications, Dahua's Starlight models offer best-in-class light sensitivity capturing color details in low light down to 0.005 lux. These cameras overcome challenging lighting conditions by using a judicious selection of optical parameters to balance light throughout the image process. The result is stunningly clear images in very dark environments.

Smart IR
The camera's Smart IR technology adjusts to the intensity of camera's infrared LEDs to compensate for the distance of an object. Smart IR prevents IR LEDS from whiting out images as they come closer to the camera. The camera's integrated IR illumination provides high performance in extreme low-light environments up to 50m (165ft).

Wide Dynamic Range
Embedded with industry leading wide dynamic range (WDR) technology, vivid pictures are achieved even in the most intense contrast lighting conditions. For applications with both bright and low lighting conditions that change quickly, Ultra WDR (140dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

Intelligent Video System (IVS)
With built-in optional intelligent video analytics, the camera has the ability to detect and analyze moving objects for improved video surveillance. The camera provides optional standard intelliegence at the edge allowing detection of multiple object behaviors such as abandoned or missing objects. IVS also supports Tripwire analytics, allowing the camera to detect when a pre-determined line has been crossed, People Counting, ideal for business intelligence, Facial Detection, for searching or identification of individuals, and Heat map for exporting the daily or hours report that shows the hottest area.

Image Flip
Capturing unnecessary data such as surrounding hallway walls can increase storage requirements without any added value. The image flip feature allows the camera's image to be rotated in 90° increments for better video optimization.

Protection
The camera's outstanding reliability is unsurpassed due to its rugged design. The camera is protected against water and dust to IP67 standards, making it suitable for indoor or outdoor environments.

Supporting ±25% input voltage tolerance, this camera suits even the most unstable conditions for outdoor applications. Its 8KV lightning rating provides protection against the camera and its structure from the effects of lightning.

Regions of Interest
Regions of Interest (ROI) is a user defined feature that allows the operator to monitor specific areas of a scene while still maintaining overall situational awareness of less important areas.

Streaming
With a choice of unicast or multicast streaming, bandwidth-efficient viewing, recording and third-party video management can easily be achieved. Dual streaming enables bandwidth-efficient viewing and recording. Depending on the resolution and frame rate selected on the first stream, the second stream provides a copy at a lower resolution.

Technical Specification

Camera

Image Sensor	1/2.8" CMOS
Effective Pixels	2048(H) x 1536(V)
ROM / RAM	128MB / 256MB
Scanning System	Progressive
Electronic Shutter Speed	1/3 ~ 1/100,000s
Minimum Illumination	Color: 0.005 Lux@F1.4; 0 Lux @F1.4 (IR on)
S/N Ratio	More than 50dB
IR Distance	Distance Up to 50m (165ft)
IR On/Off Control	Auto / Manual
IR LEDs	4
Vedio Output	1

Lens

Lens Type	Motorized/ Auto Iris (DC)
Mount Type	Board-in
Focal Length	2.7mm~12mm
Max Aperture	F1.4
Angle of View	H: 94°~33°
Focus Control	Motorized

Pan/Tilt/Rotation

Pan/Tilt Range	Pan: 0° ~ 355°; Tilt: 0° ~ 65°, Rotation：0° ~ 355°

Alarm and Audio

Alarm In/Out	2/1
Audio In/Out	1/1

Video

Compression	H.265 / H.264 / MJPEG
Streaming Capability	3 Streams
Resolution	3MP (2048×1536) / 1080p (1920×1080) / 720p (1280×720) / D1 (704×576) / CIF(352×288)
Frame Rate	Main Stream 1080p/720p (1 ~ 30fps)
	Sub Stream 1 D1/CIF (1 ~ 30fps)
	Sub Stream 2 1080p /720p /D1 (1 ~ 30fps)
Bit Rate Control	CBR / VBR
Bit Rate	H.264: 40K ~ 10Mbps
Day/Night	Auto (ICR) / Color / B/W
BLC Mode	BLC / HLC / Ultra WDR (140dB)
White Balance	Auto / Sunny / Night / Outdoor / Customized
Gain Control	Auto / Manual
Noise Reduction	3D DNR
Motion Detection	Off / On (4 Zone, Rectangle)
Region of Interest	Off / On (4 Zone)
Smart IR	Support
Digital Zoom	16x
Flip	0°/90°/180°/270°
Mirror	Off / On
Privacy Masking	Off / On (4 Area, Rectangle)
EIS	Support
Ultra Defog	Support

Intelligent Function

IVS (optional)	Tripwire, Intrusion, Abandoned Object Detection, Missing Object Detection, People Counting, Face Detection, Heat Map

Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	IPv4/ IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, SMTP, NTP, DHCP, DNS, PPPOE, DDNS, FTP, IP Filter, QoS, Bonjour, 802.1x
Interoperability	ONVIF, PSIA, CGI
Streaming Method	Unicast / Multicast
Max. User Access	20
Edge Storage	NAS (Network Attached Storage), Local PC for instant recording, Micro SD 128GB
Web Viewer	IE10....
Management Software	Smart PSS, DSS
Smart Phone	Android, Ios

Certifications

Certifications	FCC (SEFD1507095-A) UL (E234884-A79-UL)

Electrical

Power Supply	DC12V, ±25%, PoE (af Class 0)
Power Consumption	Max. 11W (12V DC, with IR on, motorized lens working)

Environmental

Operating Conditions	-30°C ~ +60°C (-22°F ~ +140°F) / Less than 90% RH
Storage Conditions	-30°C ~ +60°C (-22°F ~ +140°F) / Less than 90% RH
Ingress Protection	IP67

Construction

Casing	Metal
Dimensions	272.9 mm × 94.9mm × 94.9mm (10.74" x 3.73" x 3.73")
Net Weight	1.2Kg (2.65lb)
Gross Weight	1.4Kg (3.09lb)

Ordering Information

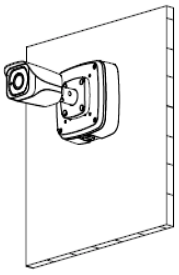
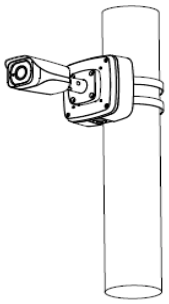
Type	Part Number	Description
3MP Camera	DH-IPC-HFW83A1EN-Z	3MP, 2.7mm~12mm, True D/N, Ultra WDR, IP67, IR: up to 50m (165ft), PoE
	DH-IPC-HFW83A1EN-ZI	3MP, 2.7mm~12mm, True D/N, Ultra WDR, IP67, IR: up to 50m (165ft), PoE, IVS
Accessories	PFA121	Junction Box
	PFA152	Pole Mount Bracket
	PFA150	Pole Mount Bracket
	PFA151	Corner Mount Bracket

Accessories

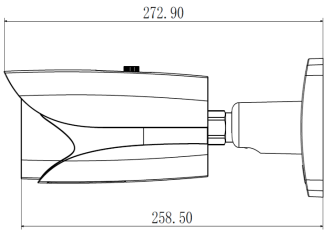
Optional:

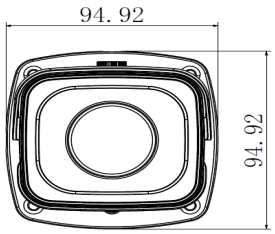


PFA121 Junction box | PFA152 Pole mount | PFA150 Pole mount | PFA151 Corner mount

Junction Mount	Pole Mount
PFA121	**PFA152+PFA121**
	

Dimensions (mm/inch)





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